

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,905	07/17/2003	Thomas N. Corwin	COR22 P-301	2135
277	7590 11/04/2004		EXAMINER	
PRICE HENEVELD COOPER DEWITT & LITTON, LLP			HORTON, YVONNE MICHELE	
695 KENMO P O BOX 256	5 KENMOOR, S.E. O BOX 2567		ART UNIT	PAPER NUMBER
GRAND RAPIDS, MI 49501			3635	
			DATE MAILED: 11/04/200	4

Please find below and/or attached an Office communication concerning this application or proceeding.

X	Application No.	Applicant(s)			
Office Action Summany	10/621,905	CORWIN, THOMAS N.			
Office Action Summary	Examiner	Art Unit			
The MAII INC DATE of this commission is	Yvonne M. Horton	3635			
The MAILING DATE of this communication app Period for Reply	lears on the cover sheet with the	correspondence address			
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).					
Status					
1) Responsive to communication(s) filed on 7/17/	<u>03</u> .				
	,—				
	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.				
Disposition of Claims	,	0.0.2.0.			
 4) Claim(s) 1-14 is/are pending in the application. 4a) Of the above claim(s) is/are withdraw 5) Claim(s) 13 is/are allowed. 6) Claim(s) 1-11 and 14 is/are rejected. 7) Claim(s) 12 is/are objected to. 8) Claim(s) are subject to restriction and/or 	vn from consideration.				
Application Papers					
9) The specification is objected to by the Examine 10) The drawing(s) filed on 17 July 2003 is/are: a) Applicant may not request that any objection to the Replacement drawing sheet(s) including the correction 11) The oath or declaration is objected to by the Examine 11.	☑ accepted or b) ☐ objected to drawing(s) be held in abeyance. Se ion is required if the drawing(s) is ob	ee 37 CFR 1.85(a). Djected to. See 37 CFR 1.121(d).			
Priority under 35 U.S.C. § 119					
 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. 					
Attachment(s)					
) Notice of References Cited (PTO-892)	4) Interview Summary				
Notice of Draftsperson's Patent Drawing Review (PTO-948) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date	Paper No(s)/Mail D 5) Notice of Informal F 6) Other: see te marke	Patent Application (PTO-152)			

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent #4,658,552 to MULFORD. MULFORD discloses the use of a building including an exterior wall structure, as shown in Figures 2 and 3 including an exterior sheathing (54), an interior wall (60), at least one layer of thermal wall insulation material (52) between the exterior sheathing (54) and the interior wall (60), the layer of thermal wall insulation material (52) being spaced away from the exterior sheathing (54) to provide a wall air gap (58,62) between the insulation (52) and exterior sheathing (54); a roof structure including a roof deck (96), an interior ceiling (100), a layer of thermal roof insulation material (104) between the roof deck (96) and the interior ceiling (100), the layer of thermal roof insulation material (104) being spaced away from the roof deck (96) to provide a roof air gap (as between 90 and 92) between the layer of thermal insulation (104) and the roof deck (96); the wall air gap (58,62) being in fluid communication, column 6, line 6-15, with the roof air gap (between 90 and 92); a roof vent (column 6, line 14 "out to the atmosphere") to allow air to flow freely from the roof air gap (between 90 and 92) to an outside space; and an air ventilation grid (10) located at a lower end (see Figure 2 and 3) of the wall air gap (58,62), the air ventilation grid

(10) having a plurality of openings (12) that are sufficiently small to prevent insects from entering the wall air gap (column 1, line 63-66), but sufficiently large to allow the outside air to freely enter into the wall air gap (58,62), whereby air is allowed to freely flow by natural convection upward from the outside through the ventilation grid (10), upwardly through the wall air gap (58,62), upwardly along the roof air gap (between 90 and 92), and out of the roof vent, column 2, lines 30-33. Regarding claim 10, the layer of the thermal wall insulation material (52) is located adjacent the interior wall (60).

Claim 14 is rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 4,658,552 to MULFORD. The structure of MULFORD inherently discloses the process for constructing a building including the steps of constructing on a foundation (F), see the marked attachment, an exterior sheathing (54), an interior wall (60), at least one layer of thermal wall insulation material (52) between the exterior sheathing (54) and the interior wall (60), the layer of thermal wall insulation material (52) being spaced away from the exterior sheathing (54) to provide a wall air gap (58,62) between the insulation (52) and exterior sheathing (54); constructing a roof structure including a roof deck (96), an interior ceiling (100), a layer of thermal roof insulation material (104) between the roof deck (96) and the interior ceiling (100), the layer of thermal roof insulation material (104) being spaced away from the roof deck (96) to provide a roof air gap (as between 90 and 92) between the layer of thermal insulation (104) and the roof deck (96); the roof air gap (as between 90 and 92) and the wall air gap (58,62) being in fluid communication, column 6, line 6-15, to allow air to flow freely from the roof air gap (between 90 and 92) to an outside space; installing a roof vent, column 6, line 14;

installing an air ventilation grid (10) located at a lower end (see Figure 2 and 3) of the wall air gap (58,62), the air ventilation grid (10) having a plurality of openings (12) that are sufficiently small to prevent insects from entering the wall air gap (column 1, line 63-66), but sufficiently large to allow the outside air to freely enter into the wall air gap (58,62), whereby air is allowed to freely flow by natural convection upward from the outside through the ventilation grid (10), upwardly through the wall air gap (58,62), upwardly along the roof air gap (between 90 and 92), and out of the roof vent, column 2, lines 30-33.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

- 1. Determining the scope and contents of the prior art.
- 2. Ascertaining the differences between the prior art and the claims at issue.
- 3. Resolving the level of ordinary skill in the pertinent art.
- 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 2–4,6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #4,658,552 to MULFORD in view of US Patent #6,745,531 to EGAN.

MULFORD discloses the basic claimed structure except for the insulation material

Page 5

Art Unit: 3635

between the foam and the interior wall. EGAN teaches that it is known in the art to Have a rigid foam layer (13) spaced from the interior wall (18) and a layer of fibrous material (17,19) disposed between the foam and the interior wall (18). Hence, it would have been obvious to one having ordinary skill in the art to provide the structure of MULFORD with the rigid foam layer and layer of fibrous material as the insulating materials in order to enhance the ventilation of gases and water between the wall thereby preventing moisture from being retained and remaining trapped within the wall while further increasing the thermal properties of the building. Regarding claims 3 and 4, the sheathing (54) of MULFORD is a polymeric foam mat, column 6, lines 16-23. In reference to claim 6, the rigid insulation of EGAN is polystyrene, column 9, line 49. Regarding claim 7, the layer of fibrous material of EGAN includes glass fibers, column 9, line 51.

Claims 5,8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #4,658,552 to MULFORD. MULFORD discloses the basic claimed structure except for detailing the size of the openings formed in the ventilation grid, and except for detailing the size of the wall and roof gaps. It would have been obvious to one having ordinary skill in the art at the time the invention was made to select a ventilation opening size, roof gap and wall gap suitable for the use intended as an obvious matter of design choice. For instance, if the structure requires a large draft pull then larger sized wall and roof gaps would be sufficient. In the event of the ventilation openings, larger openings obviously would allow the passage of larger air passage;

however, the larger openings would also allow for the passage of more debris and insects.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #4,658,552 to MULFORD in view of US Patent #6,679,010 to HONDA. MULFORD discloses the basic claimed structure except for the use of a thin moisture barrier. HONDA teaches that it is known in the art to provide a wall structure with a moisture barrier (26). Hence, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the structure of MULFORD with the moisture barrier of HONDA in order to enhance the structure's ability to resist damage to exposure from moisture.

Allowable Subject Matter

Claim 12 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 13 is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yvonne M. Horton whose telephone number is (703) 308-1909. The examiner can normally be reached on 6:30 am - 3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl D. Friedman can be reached on (703) 308-0839. The fax phone

number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Yvonde M. Hortor Examiner Art Unit 3635

YMH September 30, 2004

